

CELL BIOLOGY International Reports

CONTENTS

VOLUME 14, NOS. 1-12 1990

QH
573
C39

Published for the

INTERNATIONAL FEDERATION FOR CELL BIOLOGY

by ACADEMIC PRESS

London San Diego New York Boston

Sydney Tokyo Toronto



CELL BIOLOGY
International Reports
Vol. 14, No. 1, January 1990

	Page
Editorial	1
H. Manev, M. Favaron, G. De Erausquin, A. Guidotti, G. Brooker and E. Costa. Destabilization of ionized Ca^{2+} homeostasis in excitatory amino acid neurotoxicity: antagonism by glycosphingolipids	3
A. Okuda and G. Kimura. Cell-cycle independent increase in heat production in response to growth factors in cultured rat fibroblasts: interpretation by continuum model	15
R-i. Hata. Age-dependent changes in collagen metabolism and response to hypertonic culture conditions of rat aortic smooth muscle cells and skin fibroblasts	25
A. L. Inyang, A. Bikfalvi, H. Lu and G. Tobelem. Chloroquine's modulation of endothelial cell activity induced with basic fibroblast growth factor and human serum: effect on mitogenesis, protease production and cell migration	35
C. Grief and P. J. Shaw. Cell wall glycoproteins of <i>Chlamydomonas reinhardtii</i> : negative stain electron microscopy and epitope mapping of the molecules	47
G. Egidy, C. Paveto, S. Passeron and M. A. Galvagno. cAMP levels and <i>in situ</i> measurement of cAMP related enzymes during yeast-to-hyphae transition in <i>Candida albicans</i>	59
E. Grotewold, G. O. Aisemberg, G. E. Taccioli and N. D. Judewicz. Genes responsive to the alteration of polyamine biosynthesis in <i>Neuro- spora crassa</i>	69
A. Zborek, S. Krzyzowska-Gruca and S. Gruca. Nuclear fraction enriched in interchromatin granules	79
Book reviews	89
Announcements	91
Errata	96

CELL BIOLOGY
International Reports
Vol. 14, No. 2, February 1990

	Page
Bao-Lu Zhao, Xiao-jie Li, Geng-tao Liu, Wen-ying Jia and Wen-juan Xin. Scavenging effect of schizandrins on active oxygen radicals	99
R. Cortivo, A. de Galateo, I. Castellani, P. Brun, M. G. Giro and G. Abatangelo. Hyaluronic acid promotes chick embryo fibroblast and chondro- blast expression	111

T. Makita and E. Sagara. Post-mortem changes in cytochemical localization and enzymological measurement of marker enzymes of the mitochondria, SDH and MG-ATPase of porcine muscle stored at 4°C, -18°C, or -80°C	123
A. Hidalgo, J. A. González-Reyes and P. Navas. Protective effects of ascorbate free radical against caffeine and dichlobenil action in onion roots ..	133
R. M. W. Chau, L. P. Zhao, L. S. Jen and S. O. Chan. Factors affecting neurite outgrowth of occipital cortical explants	143
B. Mehul, M-A. Doyennette-Moyne, M. Aubery, H-G. Mannherz and P. Codogno. 5'-nucleotidase is involved in chick embryo myoblast spreading on laminin	155
Y. Raymond. Differential effect of pH on solubilization of nuclear lamins A/C and lamin B	165
S. Ghosh, R. Dey, S. Sarkar and D. Bhattacharya. Timings of DNA synthesis in the nucleoli of <i>Allium cepa</i> L.	173

Short Communication

G. E. Ordenes and M. Santos. Surface-associated large tumor antigen is mainly detected in proliferating SV40-transformed cells	179
Book review	181
Announcements	183

CELL BIOLOGY

International Reports

Vol. 14, No. 3, March 1990

	<i>Page</i>
T. Yoshida, K. Katsuta, H. Takanari and K. Izutsu. Association of a cytoplasmic dynein-like protein recognizable by anti-MAP 1C with the mammalian mitotic spindle	189
M. Järvinen. Vimentin in human erythroleukemia (HEL) cells is modulated with differentiation inducers	199
A. Vedeler, I. F. Pryme and J. E. Hesketh. Insulin and step-up conditions cause a redistribution of polysomes among free, cytoskeletal-bound and membrane-bound fractions in Krebs II ascites cells	211
J. M. Jamison, K. Krabill, D. G. Flowers and C.-c. Tsai. Polyribonucleotide-anthraquinone interactions: <i>in vitro</i> antiviral activity studies	219
M. Stopp and M. F. Horster. Binding of 3H-aldosterone and 3H-dexamethasone in primary monolayer cultures of kidney cortical collecting tubule (CCT) cells	229
T.-C. Lee, F.-M. Lin, I.-C. Ho, T.-Y. Liu, T.-C. Wang, Y.-I. Chu and H.-Y. Chang. Paraquat-resistant cell lines derived from Chinese hamster ovary cells	235

H. T. Hassan, E. C. Pearson and J. K. H. Rees. Retinoic acid induces granulocytic differentiation of myeloid progenitors in congenital agranulocytosis bone marrow cells	247
C. M. Martínez, S. Ayala, A. Coquet, M. Lepinay, O. Michel, T. Robles, F. Chiang, K. Alexanderson, P. E. Sánchez and J. Lever. Malignant cell autolysis caused by intracytoplasmic liberation of lysosomal enzymes	255
K. Akiyama, K. Inoue and T. Senshu. Immunocytochemical demonstration of skeletal muscle type peptidylarginine deiminase in various rat tissues	267
M. Aubery, M. Reynier, M. Lopez, E. Ogier-Denis, J. Font and F. Bardin. WGA binding to the surface of two autologous human melanoma cell lines: different expression of sialyl and N-acetylglucosaminyl residues	275
Meetings and Conferences	287

CELL BIOLOGY
International Reports
Vol. 14, No. 4, April 1990

Preface	<i>Page</i> iii
G. A. Langer. Localization of Ca^{2+} important in myocardial contractile control	295
M. I. M. Noble and A. J. Drake-Holland. Do studies of mechanical restitution tell us anything about the mechanism of Ca^{2+} release in myocardial cells?	299
K. D. Philipson. The cardiac Na^{+} - Ca^{2+} exchanger: dependence on membrane environment	305
W. C. Hülsmann and L. E. A. de Wit. Acidosis, cardiac stunning and its prevention by oxygen	311
G. Vandeplasseche and M. Borgers. Ultrastructure and Ca^{2+} reallocation during ischemia, the Ca^{2+} paradox and metabolic acidosis	317
A. J. Verkleij, J. A. Post and C. T. W. M. Schneijdenberg. Is acidosis the clue to the loss of structure and functioning of the sarcolemma?	335
M. J. Matos, J. A. Post, B. Roelofsen and J. A. F. Op den Kamp. Composition and organization of sarcolemmal fatty acids in cultured neonatal rat cardiomyocytes	343
J. Seelig. Interaction of phospholipids with Ca^{2+} ions. On the role of the phospholipid head groups	353
R. Mannhold, W. Voigt and K. Dross. Phosphatidylcholine: a pharmacologically relevant site for binding of antiarrhythmics?	361
A. Seelig. The use of monolayers for simple and quantitative analysis of lipid-drug interactions exemplified with dibucaine and substance P	369

E. Scheufler and T. Peters. Phosphatidylserine monolayers as models for drug uptake into membranes and tissue	381
P. G. Thomas. Studies of the interactions of the Ca^{2+} antagonist flunarizine with model membrane systems	389
L. Ver Donck, G. Verellen, R. Vandewiele, F. De Clerck and M. Borgers. Class IV Ca^{2+} antagonists do not affect lipid peroxidation in singlet oxygen challenged cardiomyocytes	399

CELL BIOLOGY
International Reports
Vol. 14, No. 5, May 1990

	<i>Page</i>
Editorial	407
A. M. Martelli, A. M. Billi, C. de Marchis, L. Manzoli and L. Cocco. Probing the sulfhydryl groups of nuclear matrix proteins with 6-iodoacetamidofluorescein	409
M. Hiyoshi, A. Sasaki, K. Hashimoto, K. Park, T. Im, N. Tatsumi and K. Okuda. Interleukin-2 induces motility of human lymphocytes, but not their mobility	419
J. B. Court, C. Burn and J. L. Moore. Flow cytometric studies of the survival of cytochalasin-induced polyploidy in Chinese hamster ovary cells	433
I. F. Pryme and J. E. Hesketh. Insulin induces cell adhesion and normal flattened morphology in Krebs II ascites tumour cells	447
R. A. Flickinger, E. Brooks, P. Choi, M. Morlock, B. Parker and J. Snider. Possible role of H1 histone in the differentiation of mouse erythroleukemia cells	457
F. Dubé and L. Coutu. The sodium requirement for activation of surf clam oocytes	463
Y. Miki and S. Miki. Change of genetic expression by physical compression forces	473
Book reviews	479
Constituent Cell Biology Societies	487
Meetings and Conferences	492

CELL BIOLOGY
International Reports
Vol. 14, No. 6, June 1990

	<i>Page</i>
H. J. Bos, G. D. Keizer, A. J. C. v.d. Muijsenberg and R. H. J. Beelen. HLA-DR expression on human peritoneal macrophages <i>in vivo</i> and <i>in vitro</i> ..	499

R. Hata, C. Bessem, P. Bringas, Jr., M-Y. Hsu and H. C. Slavkin. Epidermal growth factor regulates gene expression of both epithelial and mesenchymal cells in mouse molar tooth organs in culture	509
S. Ghosh and N. Paweletz. Localization of ribosomal cistrons at the ultrastructural level by <i>in situ</i> hybridization technique	521
M. K. Sidhu, M. S. Russo, K. A. Zirvi, L. Scala and S. Kumar. Tumorigenicity of EJ- <i>ras</i> oncogene transformed NIH 3T3 cells and expression of plasminogen activators	527
C. Verger and J. Imbenotte. Stimulatory and inhibitory effects of serum and conditioned medium on cell spreading	543
P. Di Francesco, F. Pica, C. Favalli, E. Tubaro and E. Garaci. Inhibition of rat fibroblast cell proliferation at specific cell cycle stages by cocaine ..	549
O. Trubiani, A. M. Martelli, L. Manzoli, E. Santavenere and L. Cocco. Nuclear lipids in friend cells. Shifted profile of diacylglycerol during erythroid differentiation induced by DMSO	559
T. Kawada, N. Aoki, R. Kawai and E. Sugimoto. Proliferation of 3T3-L1 preadipocytes in a completely defined serum-free medium	567
Meetings and Conferences	575

CELL BIOLOGY
International Reports
Vol. 14, No. 7, July 1990

	<i>Page</i>
R. L. Shoeman, E. Mothes, C. Kesselmeier and P. Traub. Intermediate filament assembly and stability <i>in vitro</i> : effect and implications of the removal of head and tail domains of vimentin by the human immunodeficiency virus type 1 protease	583
I. Kamo, A. Kikuchi, H. Ishii, T. Matsuoka, S. Furukawa and S. Ishiura. Establishment of myoid cells from bone marrow	595
W. L. Davis, K. O. Schmid, J. W. Huettner, G. R. Farmer, B. H. Jacoby and D. B. P. Goodman. Immunolocalization of secretory protein-I or chromogranin A in amphibian urinary bladder granular cell granules	601
R. H. Zidell and R. Loch-Caruso. A simple dye-coupling assay for evaluating gap junctional communication: the importance of transcription and translation on the establishment of dye-coupling	613
J. R. Cook and J-F. Chiu. Alpha-fetoprotein mRNA: variation of half-life in rat hepatoma cell lines and destabilization by sodium butyrate	629
P. Locci, R. Evangelisti, C. Lilli, E. Becchetti and P. Carinci. Concanavalin A affects glycosaminoglycans cellular and extracellular accumulation in cultured embryonic fibroblasts	641
M. Leclerc and M. Bajelan. Some characteristics of rabbit anti sea star T-like cells serum	649

M. Callebaut. Improved visualization of ultrastructural components in the avian ovarian granulosa basement membrane	653
L. G. Weide. Conservation of centriole protein composition among different species	659
Meetings and Conferences	661

CELL BIOLOGY
International Reports
Vol. 14, No. 8, August 1990

	<i>Page</i>
E. M. Tyobeka and R. W. Becker. Growth and morphological changes induced by lithium chloride treatment of HL-60 cells	667
S. Ghosh and N. Paweletz. The nucleolar chromatin and the secondary constriction	681
N. M. Mazingo and D. E. Chandler. The fluorescent probe BCECF has a heterogenous distribution in sea urchin eggs	689
L. Moro, M. Colombi, S. Crespi, R. Di Lernia and S. Barlati. Study of fibronectin expression in tumour cells by dot-blot and <i>in situ</i> hybridization: quantitative evaluation by image analysis	701
S. Jamieson, R. Barraclough and P. S. Rudland. Production of metastatic phenotype with DNA from metastatic cells but not with oncogenic DNA	717
H. Kamei. Location of nuclear antigen(s) recognized by DSB389 Mab, a monoclonal antibody against desmin, observed by confocal laser scanning fluorescence microscopy	727
H. Beele, H. Thierens and L. de Ridder. Direct effects of serotonin, and 5-HT ₂ , α_1 and H ₁ receptor-antagonists on embryonic chick skin <i>in vitro</i> : a morphological and functional study	737
Z. A. Shraideh. A polarized light and fluorescent microscopic study of enriched birefringent fibrils in physarum plasmodia	747
Meetings and Conferences	757

CELL BIOLOGY
International Reports
Vol. 14, No. 9, September 1990

	<i>Page</i>
Editorial	763
M. Morret-Rauis, C. Degraef and P. Galand. S phase duration measurement by combined PCNA/cyclin immunostaining and radioautography after a single pulse-labelling with ³ H-thymidine	765

J. R. Lawton. Neutral red treated plant cells show reduced affinity for nuclease/gold complexes	897
R. L. Caruso, D. R. Juberg, V. Caldwell and I. A. Corcos. Cultured myometrial cells establish communicating gap junctions	905
R. Barbieri, G. Duro, V. Izzo, M. Cantone, S. Venturella and G. Giudice. Polymorphisms in the intergenic region of the sea urchin <i>Paracentrotus lividus</i> ribosomal DNA	917
P. Servais and P. Galand. Effects of 17 β -estradiol on c-MYC and c-Ha-RAS expression in the liver of ovariectomized female rats	927
M. A. Valentich and B. Monis. Evaluation of the effect of dietary thiram on gamma-glutamyltranspeptidase activity and histopathology of pancreas of rats treated with nitrosomethylurea	935
Book reviews	939
Meetings and Conferences	942

CELL BIOLOGY
International Reports
Vol. 14, No. 11, November 1990

	<i>Page</i>
A. Hardham and F. Gubler. Polarity of attachment of zoospores of a root pathogen and pre-alignment of the emerging germ tube	947
E. K. Fetisova, O. Y. Ivanova, T. V. Potapova, T. M. Svitkina and J. M. Vasiliev. Competition of contracting heterotypic epithelial sheets for the territory in culture	957
T. B. Shea. Neuritogenesis in mouse NB2a/d1 neuroblastoma cells: triggering by calcium influx and involvement of actin and tubulin dynamics ...	967
D. O'Driscoll and M. W. Steer. The development of a marker for estimating the rate of endocytosis in plant cells	981
M. F. W. te Pas, M. Ponc, P. M. P. van Bergen en Henegouwen, P. Lombardi, L. M. Havekes and J. Boonstra. Association of EGF and LDL receptors with the cytoskeleton of cultured keratinocytes	989
W. Robberecht and C. Denef. Evidence for a pertussis toxin-sensitive signalling pathway in the dual action of angiotensin II on growth hormone release in pituitary cell aggregates	1001
U. Batista, P. Maček and B. Sedmak. The cytotoxic and cytolytic activity of equinatoxin II from the sea anemone <i>Actinia equina</i>	1013
J. R. Palisano. The origin and role of confronting cisternae in selected fetal mouse and rat tissues	1025
G. G. Reid, J. M. Lackie and S. D. Gorham. The behaviour of BHK cells and neutrophil leukocytes on collagen gels of defined mechanical strength	1033
Book review	1047
Meetings and Conferences	1049

M. A. Hussein, I. D. Bowen and G. H. J. Lewis. The histochemical localization of ATPase, cholinesterase and acid phosphatase activity in *Culex pipiens* (Diptera, Culicidae) larvae using a methacrylate embedding technique 775

S. Capitani, M. Mazzone, V. Bertagnolo, M. Prevati, A. Daddona, D. Ricci and F. A. Manzoli. Nuclear inositol lipids in friend erythro-leukemia cells. Changes related to differentiation induced by hexamethylenebisacetamide 783

E. G. Fischer, A. Stingl and C. J. Kirkpatrick. Opioid influence on the adherence of granulocytes to human umbilical vein endothelial cells *in vitro* 797

J. P. M. Schellens, H. Vreeling-Sindelárová, P. J. A. M. Plomp and A. J. Meijer. Cytochemical and morphometric analysis of autophagy in energy depleted rat hepatocytes 805

G. A. Baumbach, N. G. Bartley, H. G. Kattesh and J. D. Godkin. Immunocyto-chemical localization of BP, a conceptus secretory protein, in trophectoderm during pig trophoblast elongation 815

L. Hyldahl, W. Engström and P. Schofield. The expression of the TGF beta 1 gene in the first trimester human eye and other embryonic organs .. 823

M. Bilej, J.-P. Scheerlinck, T. VandenDriessche, P. De Baetselier and V. Vetvicka. The flow cytometric analysis of *in vitro* phagocytic activity of earthworm coelomocytes (*Eisenia foetida*: Annelida) 831

Errata 839

Book review 841

Meetings and Conferences 843

CELL BIOLOGY
International Reports
Vol. 14, No. 10, October 1990

T. M. Newman and N. J. Severs. Arrested exocytosis of synaptic vesicles at a glutamatergic synapse, the insect fast excitatory neuromuscular junction 849

D. Cocchia, M. Rende, A. Toesca, R. Viola and V. M. Stolfi. Immunohisto-chemical study of neuropeptide Y-containing nerve fibers in the human clitoris and penis 865

S. Kanda, T. Igawa, M. Taide, P. K. Saha, N. Nishimura, K. Nomata, H. Kanetake and Y. Saito. The effect of transforming growth factor- β on the alkaline phosphatase activity in rabbit renal cortical tubular cell cultures 877

A. Inoue, Y. Komatsu, J. Ochiai, S. Itagaki, H. Nishide, M. Shikano, H. Hemmi and N. Numao. Growth inhibition and morphological changes of LLC-PK₁ induced by ultimobranchial calcitonins 887

CELL BIOLOGY
International Reports
Vol. 14, No. 12, December 1990

	<i>Page</i>
L. de Jong, R. van Driel, N. Stuurman, A. M. L. Meijne and J. van Renswoude. Principles of nuclear organization	1051
J. M. Jamison, K. Krabill, A. Hatwalkar, E. Jamison and C-c. Tsai. Potentiation of the antiviral activity of poly r(A-U) by xanthene dyes	1075
T. Tokiwa, A. Endo and M. Namba. Cytokeratin expression in human cell lines derived from liver tumors	1085
T. B. Shea and M. L. Beermann. Alterations in dynamics of microtubule assembly during axonal neuritogenesis in NB2a/d1 cells	1093
D. G. Harkin and L. P. Bignold. Importance of extracellular divalent cations to polarisation of polymorphonuclear leukocytes induced by plasma ..	1099
B. Satiat-Jeunemaitre. Visualization of microtubules in walled plant cells by immunogold silver-enhancement	1109
W. Ip and T. Saeed. Desmin-binding specificities of two desmin CNBr fragments that correspond to the headpiece domain and helix 1B	1119
M. Bajelan and M. Leclerc. Properties of sea star phagocytes in axial organ cell subpopulations	1129
S. Hatakeyama and A. Suzuki. S-phase accumulation of human salivary adenocarcinoma cells by cycloheximide	1133
K. Shimizu, O. Nose and S. Okada. The effect of thyroid hormone on the activities of lactase in the culture of fetal rat intestine	1143
Book review	1149
Meetings and Conferences	1151
Volume contents	i

Also published:-

Third European Congress on Cell Biology—Abstracts Supplement,
Volume 14, September 1990